

### III. Remarks

Reconsideration and further examination are requested.

#### A. Disposition of the Claims

Claims 1-2, 4-23, & 25-32 are pending in the application.

Claims 2, 5, 7-10, 21-23, 25-26, & 28-30 are withdrawn from consideration.

No claim is allowed.

Claims 1, 4, 6, 11-20, 27, & 31-32 are rejected.

Claims 1 & 15 are currently amended, without prejudice or disclaimer.

Support for each amended claim is found in the as-filed specification and is believed obvious from the record. In claim 1, the amendment, ~~comprises metal carboxylate; is selected from the group consisting of metal acetates, metal carboxylates, metal nitrates, metal sulfates, and metal hydroxides~~, returns the language to its form before the previous amendment was entered. Also in claim 1, the amendment, wherein the powder manufactured comprises nano-dispersed nanoparticles, adds language from claim 24.

Claim 24 is currently canceled, without prejudice or disclaimer. Claim 3 was previously canceled, without prejudice or disclaimer.

This amendment adds, changes and/or deletes one or more claims in this application. A detailed listing of each claim that is, or was, in the application, irrespective of whether or not the claim remains under examination in the application, is presented, with a status identifier.

The present amendment is believed allowable under 37 C.F.R. § 1.116(b)(1)-(2). More specifically, the present version of claim 1 presents one or more of the rejected claims in condition for allowance or in better form for consideration on appeal, and the present version of claim 15 complies with an objection or a requirement of form expressly set forth in a previous Office action.

B. 35 U.S.C. § 112, first paragraph-Written Description

Claim 15 is rejected as failing to comply with the written description requirement. Office action, para. 2. The Examiner asked each Applicant to identify support for, as recited in claim 15, *a temperature greater than 600°C*. Each Applicant directs the Examiner to the present specification, paragraph 60, which incorporates by reference U.S. pat. no. 5,984,997 and reads, in part, as follows:

shape. Methods and equipment such as those taught in US Patent Nos. 5,788,738, 5,851,507, and 5,984,997 (each of which is specifically incorporated herein by reference) can be employed in practicing the methods of this invention.

The '997 patent, in turn, states that combustion temperatures will be greater than 600°C:

of the above. Usually, combustion temperatures will be in excess of 600° C., a temperature at which diffusion kinetics will be sufficiently fast that a compositionally uniform powder will be produced.

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'997 patent, col. 5. Since incorporated information is as much a part of the application as-filed as if the text were repeated in the application, incorporated information should be treated as part of the text of the application as filed. M.P.E.P. § 2163.07. Thus, the present rejection should be withdrawn.

### C. 35 U.S.C. § 112, first paragraph-Enablement

There are two such rejections. Each is addressed under a separate header.

#### 1. Enablement of Scope (postulated inoperable embodiments)

Claim 15 is rejected as failing to comply with the enablement of scope requirement. Office action, para. 3. In short, the Examiner believes that postulated inoperable embodiments would exist if one of ordinary skill in the art were to *process[] the stream* at any temperature above 600°C, e.g., 1,000,000°C. It is respectfully submitted that the Examiner improperly equates postulated inoperability with non-enablement and failed to focus on the actual issue, namely,

whether one of ordinary skill in the art would be able to practice the claimed invention without undue experimentation.

Even if the Examiner's postulated inoperability were right, a claim is still not unpatentable for lack of operability simply because the invention would not work perfectly under all conditions. Hildreth v. Mastoras, 257 U.S. 27, 34 (1921) ("The machine patented may be imperfect in its operation; but if it embodies the general principle and works ... it is enough."); Atlas Powder Co. v. E.I. du Pont De Nemours & Co., 750 F.2d 1569, 1576-77 (Fed. Cir. 1984) ("Even if some of the claimed combinations were inoperative, the claims are not necessarily invalid.") (cases will be made available upon request). Whether a patented process is operable under postulated conditions differs from whether a particular claim is enabled by the specification.

In order to satisfy the enablement requirement of § 112, paragraph 1, the specification must enable one of ordinary skill in the art to practice the claimed invention without undue experimentation. A considerable amount of experimentation is permissible (i.e., not undue), if it is merely routine or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed. M.P.E.P. § 2164.06.

In this case, a reasonable amount of guidance about processing temperature exists in the present specification at paragraph 62:

{0062} The high temperature processing is conducted at step 106 (Figure 3) at temperatures greater than 1500°C, preferably 2500°C, more preferably greater than 3000°C, and most preferably greater than 4000°C. Such

Of course, these temperatures exceed 600°C. Between the specification, the claims, and the knowledge of one of ordinary skill in the art, one of ordinary skill in the art would be able to practice the claimed invention at *a temperature greater than 600°C without undue experimentation*. Thus, the present rejection should be withdrawn.

## 2. General Enablement (critical element missing)

Claim 1, 4, 6, 11-20, 27, & 31-32 are rejected as failing to comply with the general enablement, because the temperature range (see, e.g., paragraph 62 above) is "critical or essential." Office action, para. 4 (reading Examiner's references to paragraph 88-89 as referring to paragraph 62, because paragraph 62 is consistent with the cited language reproduced in the body of the rejection). The specification most certainly does not state the criticality of a particular temperature range. To the contrary, paragraph 58 states the opposite:

{0058} While the above examples specifically teach methods of preparing dispersed powders of oxides, carbides, nitrides, borides, and carbonitrides, the teachings may be readily extended in an analogous manner to other compositions such as chalcogenides. While it is preferred to use high temperature processing, a moderate temperature processing or a low/cryogenic temperature processing may also be employed to produce high purity nano-dispersed powders.

Along these lines, above, in addressing support for *a temperature greater than 600°C*, the Examiner was directed to the present specification, paragraph 60, which incorporates by reference U.S. pat. no. 5,984,997. The Examiner's basis for criticality is not supported by the record. Thus, the present rejection should be withdrawn.

D. 35 U.S.C. § 112, second paragraph-Indefiniteness

Claim 15 is rejected as lacking antecedent. Office action, para. 6 (reading Examiner's references to claim 16 as referring to paragraph 15, because that would make the passage make sense). The present version of claim 15 avoids the issue. Thus, the rejection should be withdrawn.

E. 35 U.S.C. § 102/103

The Examiner maintains five sets of rejections using one of several combinations of Bickmore (U.S. Pat. No. 5,984,997); Konig (U.S. Pat. No.

5,356,120), Holzl (U.S. Pat. No. 3,565,676), and Umeya (U.S. Pat. No. 5,489,449).

Final Office action, paras. 9-13. Each set is traversed under a separate header.

1. Bickmore

Claims 1, 4, 6, 11-15, 17-20, & 31-32 are rejected as anticipated by Bickmore, or in the alternative obvious over Bickmore. Office action, para. 9. Consideration is also given to the Office action dated March 9, 2007, pages 7-9, paragraph 16. A reference cannot anticipate what it does not describe. Here, on one hand, claim 1 and its rejected dependent claims recite: *wherein the powder manufactured comprises nano-dispersed nanoparticles*. On the other hand, Bickmore does not. Furthermore, silence cannot equal a reason to modify Bickmore, let alone a basis to predict the success that modification. Thus, the present rejection should be withdrawn.

2. Konig in view of Holzl

Claims 1, 4, 6, 11-15, 17-20, & 32 are rejected as obvious over Konig in view of Holzl. Office action, para. 10. It is believed that the combination fails to teach *wherein the powder manufactured comprises nano-dispersed nanoparticles*. Furthermore, silence cannot equal a reason to modify the combination, let alone a

basis to predict the success of that combination. Thus, the present rejection should be withdrawn.

3. Bickmore in view of Umeya

Claims 16 & 27 are rejected as obvious over the teachings of Bickmore in view of Umeya. Office action, para. 11. It is believed that the combination fails to teach *wherein the powder manufactured comprises nano-dispersed nanoparticles*. In fact, claim 24, now the present version of claim 1, was not rejected. Furthermore, silence cannot equal a reason to modify the combination, let alone a basis to predict the success of that combination. Thus, the present rejection should be withdrawn.

4. Konig in view of Holzl further in view of Umeya

Claims 16 & 27 are rejected as obvious over the teachings of Konig in view of Holzl further in view of Umeya. Office action, para. 12. It is believed that the combination fails to teach *wherein the powder manufactured comprises nano-dispersed nanoparticles*. In fact, claim 24, now the present version of claim 1, was not rejected. Furthermore, silence cannot equal a reason to modify the combination, let alone a basis to predict the success of that combination. Thus, the present rejection should be withdrawn.

5. Konig in view of Holzl further in view of Bickmore

Claim 31 is rejected as obvious over the teachings of Konig in view of Holzl further in view of Bickmore. Office action, para. 13. It is believed that the combination fails to teach *wherein the powder manufactured comprises nano-dispersed nanoparticles*. In fact, claim 24, now the present version of claim 1, was not rejected. Furthermore, silence cannot equal a reason to modify the combination, let alone a basis to predict the success of that combination. Thus, the present rejection should be withdrawn.

IV. Conclusion

It is believed that the present application is in condition for allowance. Favorable reconsideration of the application is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

If a petition for an extension of time is required, then one is requested. The Director is hereby authorized to charge any fees or deficiencies in fees which may be required, or credit any overpayment to Deposit Account No. 50-4028.

Respectfully submitted,

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